PATENT ABSTRACTS OF JAPAN

(11)Publication number:

10-262690

(43)Date of publication of application: 06.10.1998

(51)Int.Cl.

C12P 13/00 B01F 17/50 B01F 17/52 CO8G 61/00 C12P 15/00 // (C12N 9/04 C12R 1:645)

(21)Application number: 10-005865

(22)Date of filing:

14.01.1998

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(30)Priority

Priority number : 09 9728

Priority date : 22.01.1997

Priority country: JP

(54) POLYMERIZATION OF PHENOLIC COMPOUND OR THE LIKE AND ITS USE

PROBLEM TO BE SOLVED: To obtain a polymer for various kinds of agents by reacting a (substituted) phenol compound, an alkoxyl group-containing aromatic compound, a quinone compound and an aromatic amine compound with a specific polyphenoloxydase. SOLUTION: A polyphenoloxydase having action oxidizing polyphenol, optimum reaction pH of nearly 8.2-8.5, 50° C optimum reaction temperature and about 33,000-76,000 molecular weight by gel permeation chromatography (GFC) analysis and about 5.9-7.0 isoelectric point measured by isoelectric focusing is reacted with a phenol compound, an alkoxyl group-containing aromatic compound, a halogenated phenol compound, a quinone compound or an aromatic amine compound to provide the objective polymer of phenolic compound useful for thickeners, stabilizers, emulsions, dispersions, antioxidants, adhesives, coating materials, soil modifiers, deodorizers, bactericides, antifungal agents, insecticides, ink agents, etc.